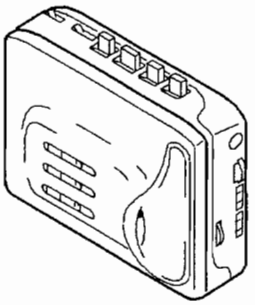
S/M Code No. 0096 DATE OF ISSUE 6/1992 – I

aiwa

HS-T33
HS-T33W

SERVICE MANUAL



STEREO RADIO CASSETTE PLAYER

• BASIC TAPE MECHANISM : 0ZM – 2 • TYPE. Y

SPECIFICATIONS

Frequency range:	FM: 87.5-108 MHz AM: 530-1705 kHz (HS-T33W) 530-1605 kHz (HS-T33)
Maximum output:	20mW + 20mW (EIAJ/16Ω) 15mW + 15mW (EIAJ/32Ω)
Power source:	Battery DC 3V, R6P (LR6, SUM-3, AA) X 2 Domestic AC power (using optional AC adaptor: AIWA AC-620)
Battery life:	Using manganese batteries (R6P, SUM-3, AA) Approx. 4 hours (EIAJ, 1mW output, playback mode) Using alkaline batteries (LR6, AM-3, AA) Approx. 8 hours (EIAJ, 1mW output, playback mode)
Maximum dimensions (W x H x D) :	89.7 x 116.3 x 35.7 mm ($3\frac{5}{8}$ x $4\frac{5}{8}$ x $1\frac{7}{16}$ inches)
Weight :	209g, 7.3 oz (including batteries)

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
- "DOLBY" and the double-D symbol ◻◻ are trademarks of Dolby Laboratories Licensing Corporation.

AIWA CO.,LTD. Tokyo Japan

Printed in Japan

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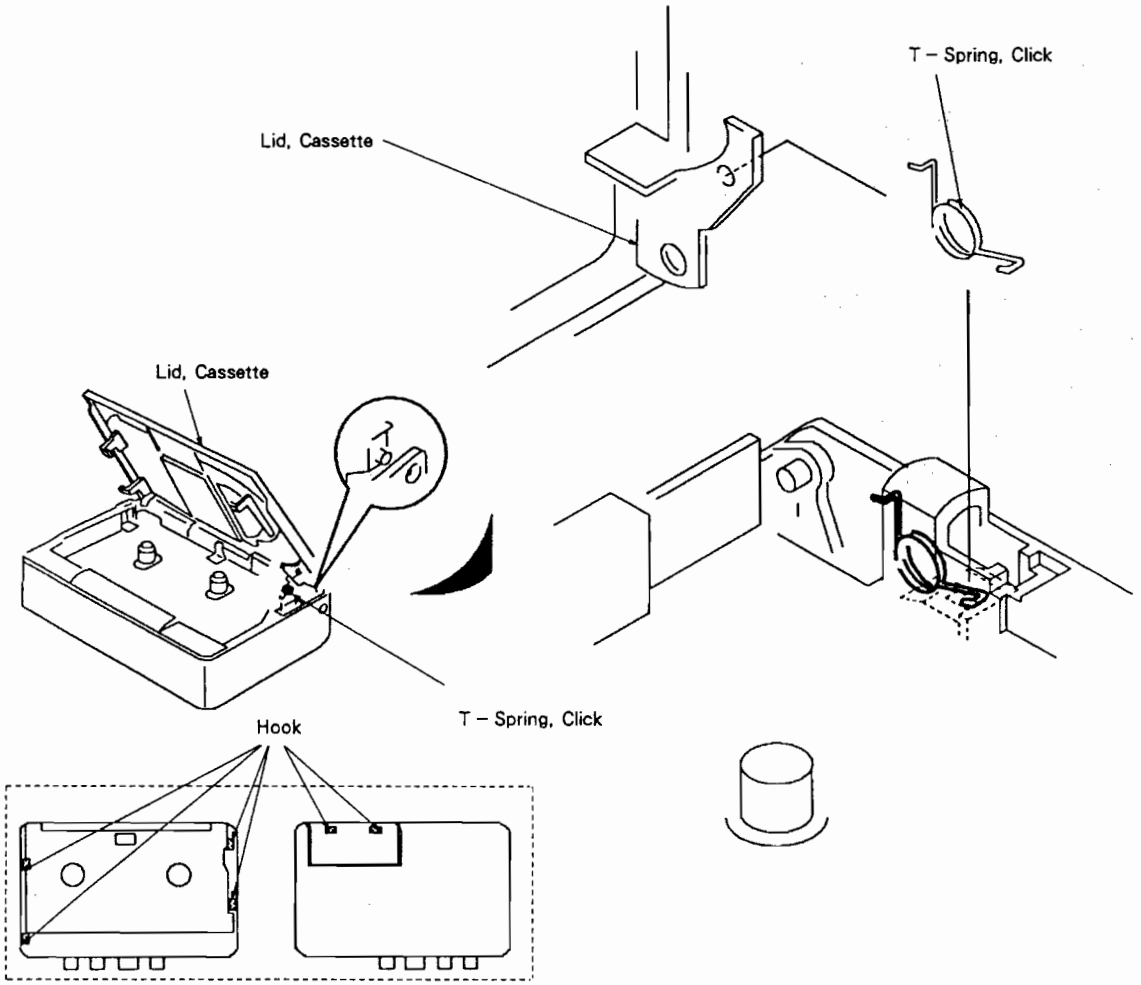
DISASSEMBLY INSTRUCTIONS

To hook the spring to the "Lid, Cassette"

1) When reinstalling, hook the "T – Spring, Click" as shown in the figure.

Note) Remove 4 hooks and remove the "Rear Cabinet".



■ ACCESSORIES/PACKAGE LIST

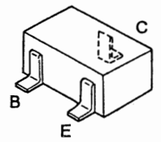
PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q,TY
	1	★81-HRE-901-019	INSTRUCTION BOOKLET, Y	※	1
	2	★87-080-025-219	CLIP,BELT ASSY		1
	3	★87-048-230-019	HP – A270 A (Y,WYUB,YZ,YK)		1
	4	★87-048-223-019	HP – 22NA (Y1,YJ1)		1

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
=== IC ===		
	87-001-351-089	IC, AN6612S
	87-001-934-089	IC, BA1106F
	87-002-677-089	IC, TA2002F
	87-001-379-089	IC, TA8122AF
=== TRANSISTOR ===		
	89-112-134-089	TRANSISTOR, 2SA1213Y(NY)
	87-026-223-089	TRANSISTOR, DTC143TK(03)
	87-026-264-089	TRANSISTOR, RN1411(XM)
	87-026-267-089	TRANSISTOR, RN2407(YH)
=== DIODE ===		
	87-020-339-089	DIODE, 1SS226(C3)
=== MAIN CIRCUIT BOARD SECTION ===		
BPF101	★87-030-136-010	FILTER, BPMB8L 7.0
C1	★87-012-158-089	CAP, CHIP S 390P-50 CH
C2	★87-012-158-089	CAP, CHIP S 390P-50 CH
C3	★87-012-158-089	CAP, CHIP S 390P-50 CH
C4	★87-012-158-089	CAP, CHIP S 390P-50 CH
C5	★87-010-501-049	CAP, ELECT 47-4 GAS
C6	★87-010-501-049	CAP, ELECT 47-4 GAS
C7	★87-010-186-089	CAP, CHIP S 4700P-50 B
C8	★87-010-186-089	CAP, CHIP S 4700P-50 B
C9	★87-010-194-089	CAP, CHIP S 0.047-25 F
C10	★87-010-194-089	CAP, CHIP S 0.047-25 F
C11	★87-010-196-089	CAP, CHIP S 0.1-25 F
C12	★87-010-196-089	CAP, CHIP S 0.1-25 F
C13	★87-010-179-089	CAP, CHIP S 1200P-50 B
C14	★87-010-179-089	CAP, CHIP S 1200P-50 B
C15	★87-010-499-049	CAP, ELECT 22-6.3 GAS
C16	★87-010-497-049	CAP, ELECT 4.7-35 GAS
C17	★87-010-452-089	CAP, CHIP 1-16 F
C19	★87-010-422-079	CAP, TANTALUM 22-4 S89
C20	★87-010-503-049	CAP, ELECT 220-4 GAS
C21	★87-010-452-089	CAP, CHIP 1-16 F
C22	★87-010-452-089	CAP, CHIP 1-16 F
C23	★87-010-452-089	CAP, CHIP 1-16 F
C24	★87-010-186-089	CAP, CHIP S 4700P-50 B
C25	★87-010-186-089	CAP, CHIP S 4700P-50 B
C26	★87-010-193-089	CAP, CHIP S 0.033-25 F
C27	★87-010-193-089	CAP, CHIP S 0.033-25 F
C28	★87-010-197-089	CAP, CHIP S 0.01-25 B
C29	★87-010-197-089	CAP, CHIP S 0.01-25 B
C30	★87-010-193-089	CAP, CHIP S 0.033-25 F
C31	★87-010-193-089	CAP, CHIP S 0.033-25 F
C32	★87-010-196-089	CAP, CHIP S 0.1-25 F
C33	★87-010-196-089	CAP, CHIP S 0.1-25 F
C34	★87-010-503-049	CAP, ELECT 220-4 GAS
C35	★87-010-501-049	CAP, ELECT 47-4 GAS
C36	★87-010-450-089	CAP, CHIP 0.47-16 F
C37	★87-010-450-089	CAP, CHIP 0.47-16 F
C38	★87-010-452-089	CAP, CHIP 1-16 F
C39	★87-010-452-089	CAP, CHIP 1-16 F
C40	★87-010-495-049	CAP, ELECT 2.2-50 GAS
C41	★87-010-493-049	CAP, ELECT 0.47-50 GAS
C49	★87-010-502-049	CAP, ELECT 100-4 GAS
C101	★87-010-148-089	CAP, CHIP S 4P-50 CH(YU)
C101	★87-010-149-089	CAP, CHIP S 5P-50 CH(Y)
C102	★87-012-150-089	CAP, CHIP S 20P-50 CH
C103	★87-010-315-089	CAP, CHIP S 27P-50 CH
C104	★87-010-151-089	CAP, CHIP S 7P-50 CH(YU)
C104	★87-010-154-089	CAP, CHIP S 10P-50 CH(Y)

REF. NO.	PART NO.	DESCRIPTION
C105	★87-010-197-089	CAP, CHIP S 0.01-25 B
C106	★87-010-312-089	CAP, CHIP S 15P-50 CH
C107	★87-012-157-089	CAP, CHIP S 330P-50 CH
C108	★87-010-452-089	CAP, CHIP 1-16 F
C109	★87-010-196-089	CAP, CHIP S 0.1-25 F
C110	★87-010-195-089	CAP, CHIP S 0.068-25 F
C111	★87-010-196-089	CAP, CHIP S 0.1-25 F
C112	★87-010-178-089	CAP, CHIP S 1000P-50 B
C113	★87-010-500-049	CAP, ELECT 33-4V
C114	★87-010-452-089	CAP, CHIP 1-16 F
C115	★87-010-322-089	CAP, CHIP S 100P-50 CH
C117	★87-010-426-089	CAP, CHIP S 0.012-25 B
C118	★87-010-426-089	CAP, CHIP S 0.012-25 B
C119	★87-010-450-089	CAP, CHIP 0.47-16 F
C120	★87-010-450-089	CAP, CHIP 0.47-16 F
C121	★87-010-305-089	CAP, CHIP 470P-50CH
C122	★87-010-318-089	CAP, CHIP S 47P-50 CH
C123	★87-010-147-089	CAP, CHIP S 3P-50 CH
CD1	★87-008-444-019	FILTER KIT, FM 5RANK
CF2	+++	FILTER KIT, FM 5RANK
CF1	★87-008-284-019	FILTER, PFB 468J
CR1	★87-030-200-019	CERAMIC RESONATOR, CSB 456 F16
J1	★87-049-861-019	JACK, 3.5 ST 2.5MM BK(PHONES)
J2	★87-009-022-019	DC JACK, LONG(DC3V)
L1	★87-003-142-089	CHOKE COIL 3.3UH TAPG
L2	★87-003-142-089	CHOKE COIL 3.3UH TAPG
L3	★87-003-142-089	CHOKE COIL 3.3UH TAPG
L4	★87-003-089-019	COIL, 47UH
L101	★81-HRE-602-019	BAR-ANT MW
L102	★80-HJ6-603-019	COIL, RF FM
L103	★80-HJ6-604-019	COIL, OSC FM
L104	★87-007-309-019	COIL, OSC AM
L105	★87-008-475-019	COIL, IFT AM
L106	★87-003-133-019	COIL, 0.22UH
LED1	87-020-520-019	LED TLR226(OPE/BATT)
R38	★87-022-042-089	RES, CHIP M M/F 0.51-1/8
SFR1	★87-024-497-019	SFR 2K V
SFR2	★87-024-497-019	SFR 2K V
SFR3	★87-024-050-019	SFR 1K
SW1	★87-031-816-019	SLIDE SW 1-1-2(DOLBY-NR/BAND)
SW2	★87-036-123-019	SLIDE SW, CHIP 1-1-2(TAPE/FM MODE)
SW3	★87-036-110-019	PUSH SW SPPB 62(FWD/REV)
SW4	★87-036-110-019	PUSH SW SPPB 62(PLAY)
SW5	★87-031-986-019	SW SLIDE 1-2-2(FUNCTION)
TH1	★87-026-256-090	THERMISTOR, HT-100
VC101	★87-011-237-019	TUN-CAP, 7.5-20
VC102	+++	TUN-CAP, 7.5-20
VC103	+++	TUN-CAP, 7.5-20
VC104	+++	TUN-CAP, 7.5-20
TC101	+++	TUN-CAP, 7.5-20
TC102	+++	TUN-CAP, 7.5-20
TC103	+++	TUN-CAP, 7.5-20
TC104	+++	TUN-CAP, 7.5-20
VR1	★87-024-326-019	VR, 20KAX2 DIA8(VOLUME)
=== SUPER BASS CIRCUIT BOARD SECTION ===		
PCB-B	★84-479-601-019	G-EQ ASSY(W/PCB-B)
=== HEAD FREX. CIRCUIT BOARD SECTION ===		
	81-HK6-604-019	HEAD PH ASSY(W/PCB-C)
PCB-C	★81-HK6-606-019	HEAD FLEX. C.B
PH	81-HK6-605-019	HEAD PH

REF. NO.	PART NO.	DESCRIPTION
=== MISCELLANEOUS ===		
M1	★87-045-300-019	MOTOR (BDH3B)



2SA1213
RN1411
RN2407
DTC143TK

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip resistor part coding

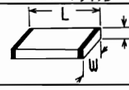
88 − □□□ − □□□

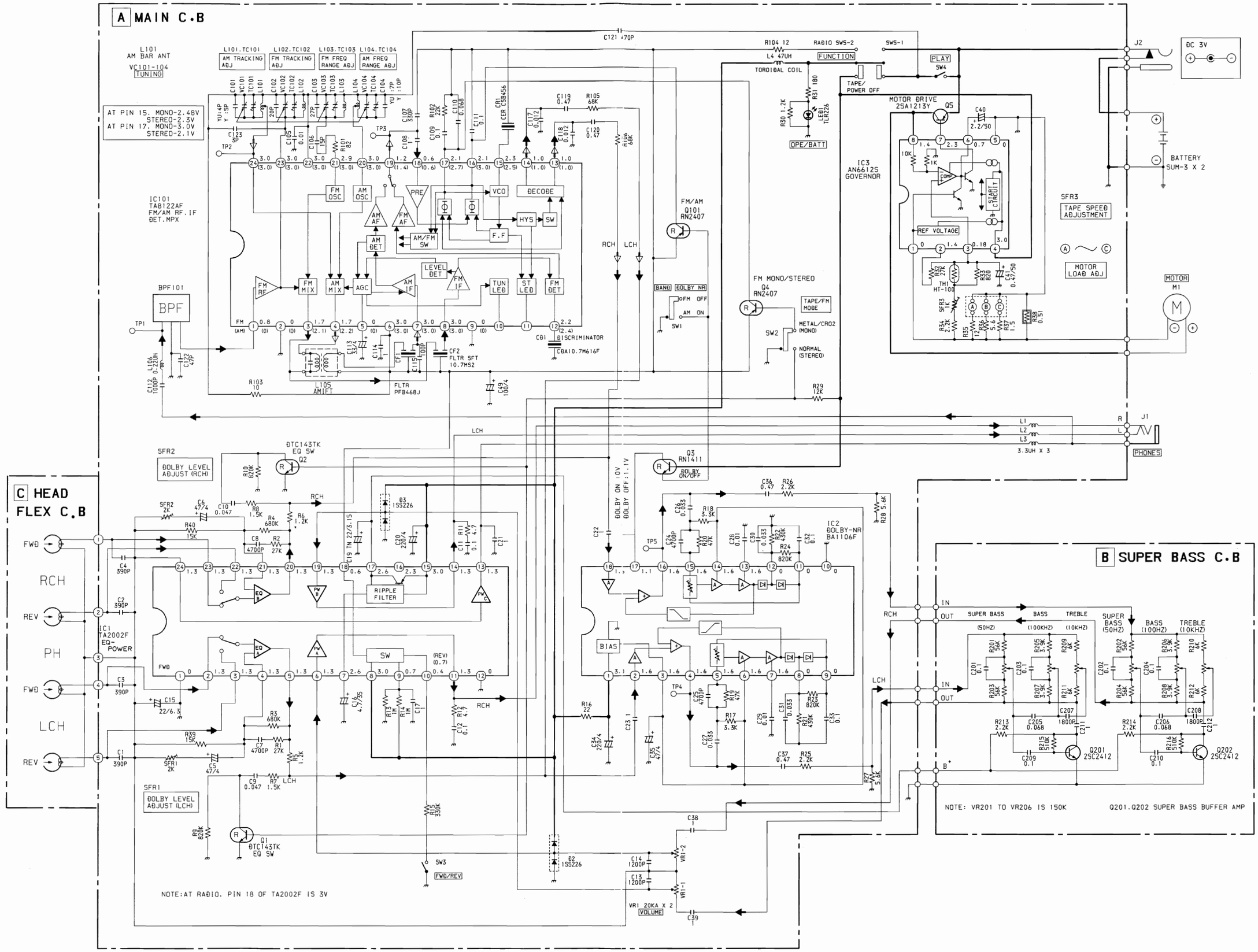
A
抵抗コード
Resistor code

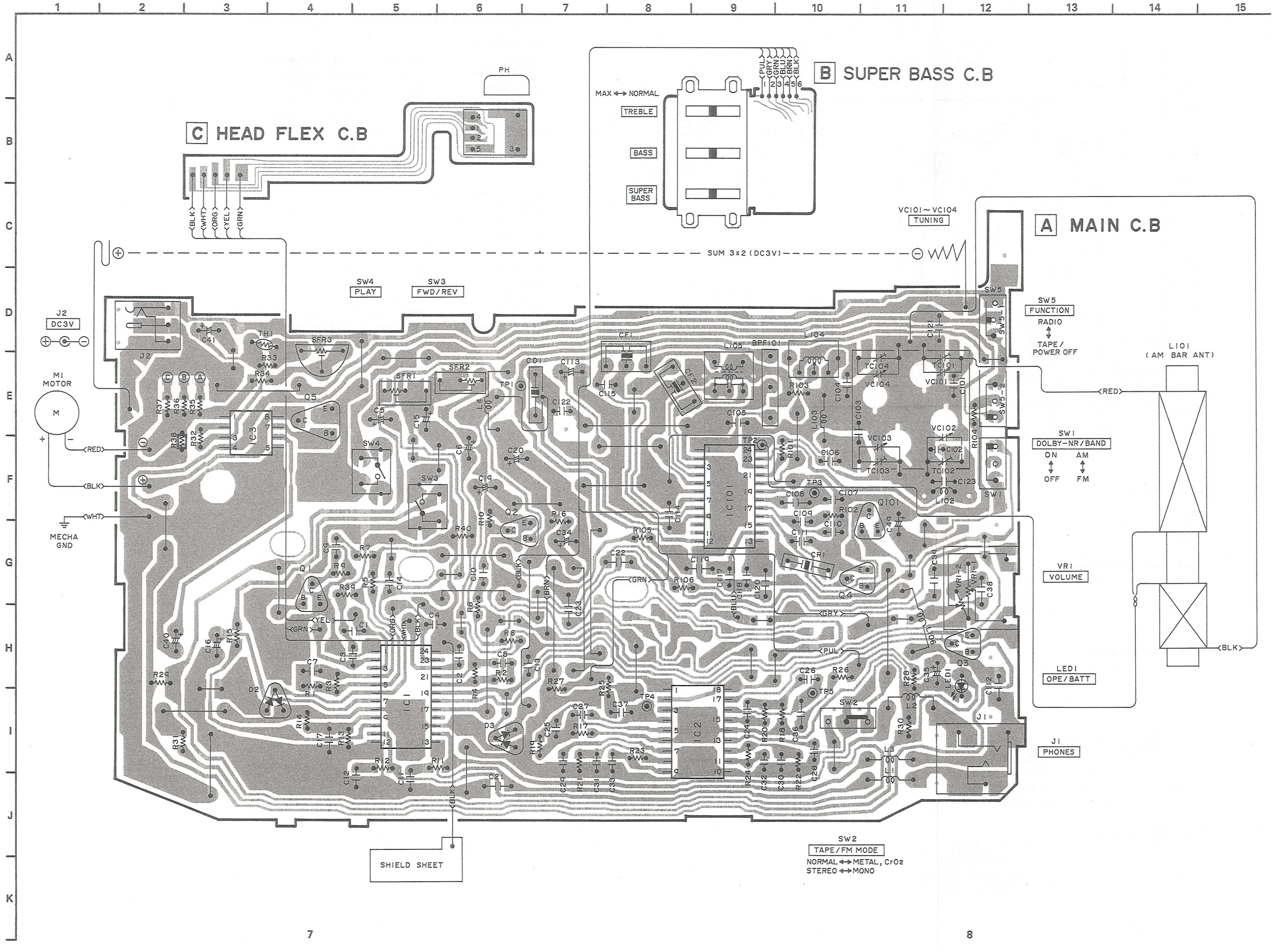
桁表示
Figure

抵抗値
Value of resistor

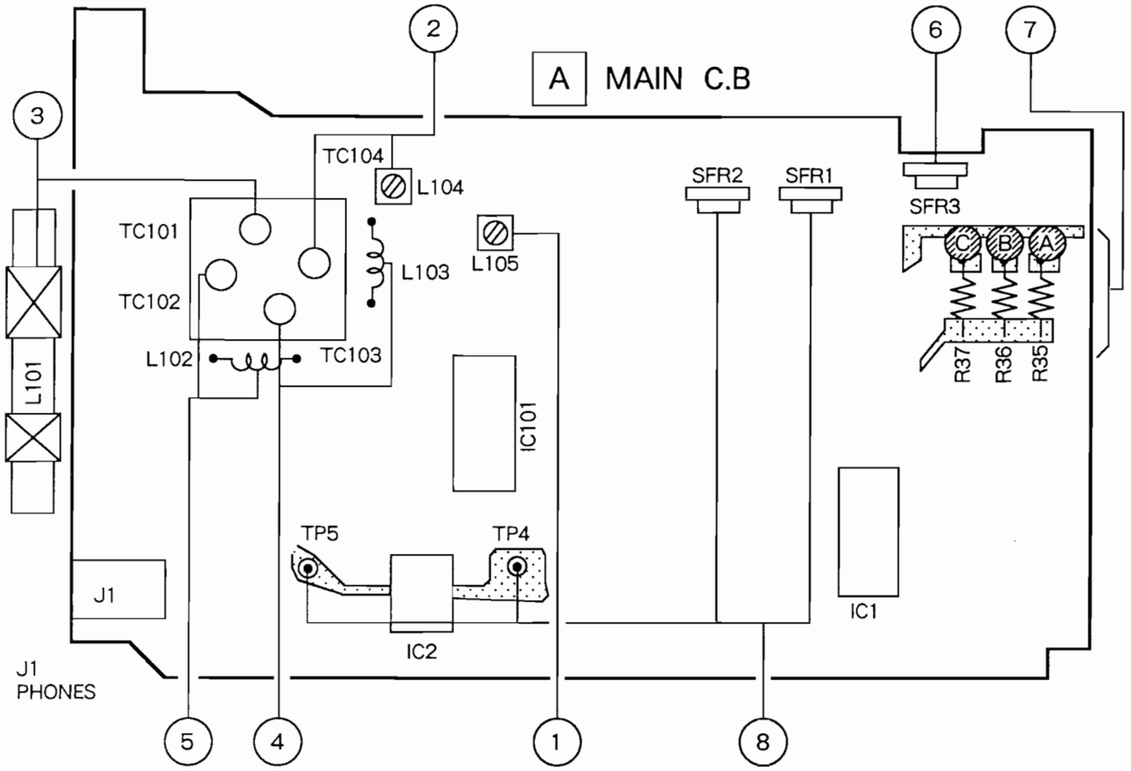
チップ抵抗
Chip resistor

Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions／寸法(mm) Form/外形	L	W	t	Resistor Code : A 抵抗コード : A
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ～0.7	128


A MAIN C.B
L101 AM BAR ANT
VC101-104 TUNING
L101.TC101 AM TRACKING ADJ
L102.TC102 FM TRACKING ADJ
L103.TC103 FM FREQ RANGE ADJ
L104.TC104 AM FREQ RANGE ADJ
AT PIN 15. MONO-2.48V STEREO-2.3V
AT PIN 17. MONO-3.0V STEREO-2.1V
IC101 TA8122AF FM/AM RF.IF DET.MPX
FM OSC
AM OSC
PRE
VCO
DECODE
HYS
SW
F.F
AM AF
FM AF
AM/FM SW
AM DET
LEVEL DET
FM MIX
AM MIX
AGC
AM IF
FM IF
TUN LED
ST LED
FM DET
FM RF
BPF101
BPF
L105 AMIFT
FLTR PFB468J
CF1
CF2 FLTR SFT 10.7MS2
CD1 DISCRIMINATOR
CDA10.7M616F
FM/AM Q101 RN2407
BAND
DOLBY NR
FM OFF
AM ON
SW1
FM MONO/STEREO Q4 RN2407
TAPE/FM MODE
METAL/CRO2 (MONO)
NORMAL (STEREO)
SW2
R104 12
L4 47UH
TOROIDAL COIL
RADIO SW5-2
SW5-1
FUNCTION
PLAY SW4
TAPE/ POWER OFF
OPE/BATT
LED1 TLR226
MOTOR DRIVE 2SA1213Y Q5
IC3 AN6612S GOVERNOR
START CIRCUIT
REF VOLTAGE
THI HT-100
SFR3 TAPE SPEED ADJUSTMENT
MOTOR LOAD ADJ
MOTOR M1
J2
DC 3V
BATTERY SUM-3 X 2
J1
PHONES
L1
L2
L3
3.3UH X 3
SFR2 DOLBY LEVEL ADJUST (RCH)
SFR1 DOLBY LEVEL ADJUST (LCH)
DTC143TK EQ SW Q2
Q1 DTC143TK EQ SW
Q3 RN1411 DOLBY ON/OFF
DOLBY ON :0V
DOLBY OFF:1.1V
IC1 TA2002F EQ-POWER
EQ A
EQ B
FW A
FW B
FW C
RIPPLE FILTER
SW
BIAS
IC2 DOLBY-NR BA1106F
SW3 FWD/REV
D2 1SS226
D3 1SS226
VR1 20KA X 2 VOLUME
FWD
REV
RCH
LCH
PH
NOTE:AT RADIO. PIN 18 OF TA2002F IS 3V
C HEAD FLEX C.B
B SUPER BASS C.B
IN
OUT
SUPER BASS (50HZ)
BASS (100KHZ)
TREBLE (10KHZ)
Q201 2SC2412
Q202 2SC2412
B+
NOTE: VR201 TO VR206 IS 150K
Q201.Q202 SUPER BASS BUFFER AMP


C HEAD FLEX C.B
PH
(BLK) (WHT) (ORG) (YEL) (GRN)
B SUPER BASS C.B
MAX ↔ NORMAL
TREBLE
BASS
SUPER BASS
(PUL) (GRY) (GRN) (BLU) (BRN) (BLK)
1 2 3 4 5 6
A MAIN C.B
VC101 ~ VC104
TUNING
SUM 3x2 (DC3V)
SW4
PLAY
SW3
FWD/REV
J2
DC3V
M1
MOTOR
(RED)
(BLK)
(WHT)
MECHA GND
SW5
FUNCTION
RADIO
TAPE / POWER OFF
SW1
DOLBY-NR/BAND
ON
OFF
AM
FM
L101
(AM BAR ANT)
VR1
VOLUME
LED1
OPE/BATT
J1
PHONES
SHIELD SHEET
SW2
TAPE/FM MODE
NORMAL ↔ METAL, CrO2
STEREO ↔ MONO

ADJUSTMENT



<RADIO SECTION>

1. AM IF Adjustment

L105 ····· 468kHz ± 2.5kHz

2. AM Frequency Range Adjustment

L104 ····· 515kHz ± 3kHz (Y, YZ)
517kHz ± 5kHz (YU)
TC104 ····· 1650kHz ± 10kHz (Y, YZ)
1750kHz ± 20kHz (YU)

3. AM Tracking Adjustment

L101 ····· 600kHz (Y, YZ)
630kHz (YU)
TC101 ····· 1400kHz (Y, YZ)
1500kHz (YU)

4. FM Frequency Range Adjustment

L103 ····· 87.0MHz ± 0.3MHz (Y, YU)
87.4MHz ± 0.1MHz (YZ)
TC103 ····· 108.5MHz ± 0.3MHz (Y, YU)
108.3MHz ± 0.1MHz (YZ)

5. FM Tracking Adjustment

L102 ····· 88.0MHz (Y, YU)
87.4MHz (YZ)
TC102 ····· 108.0MHz (Y, YU)
108.3MHz (YZ)

<TAPE PLAYER SECTION>

6. Tape Speed Adjustment

Settings : • Test tape : TTA – 100 (TTA – 111S)
• Test point : PHONES JACK (J1)
• Adjustment location : SFR3
Method : Play back the test tape, adjust for 3000Hz at FWD and ± 45Hz at REV.

7. Motor load Adjustment

Refer to the REF NO. SI – 88 – 037 – OP of service technical information.

8. Dolby Level Adjustment

Settings : • Test tape : TTA – 200 (TTA – 161, TCC – 130)
• Test point : TP4 (Lch), TP5 (Rch)
• Adjustment location : SFR1 (Lch), SFR2 (Rch)
• DOLBY SW : OFF
Method : • Connect an electrolytic capacitor (10 μF/16V) to measured equipment and TP4 (5), adjust SFR1 (2) so that the voltage at TP4 (5) is 100mV ± 1dB.

PRACTICAL SERVICE FIGURE

<RADIO SECTION>

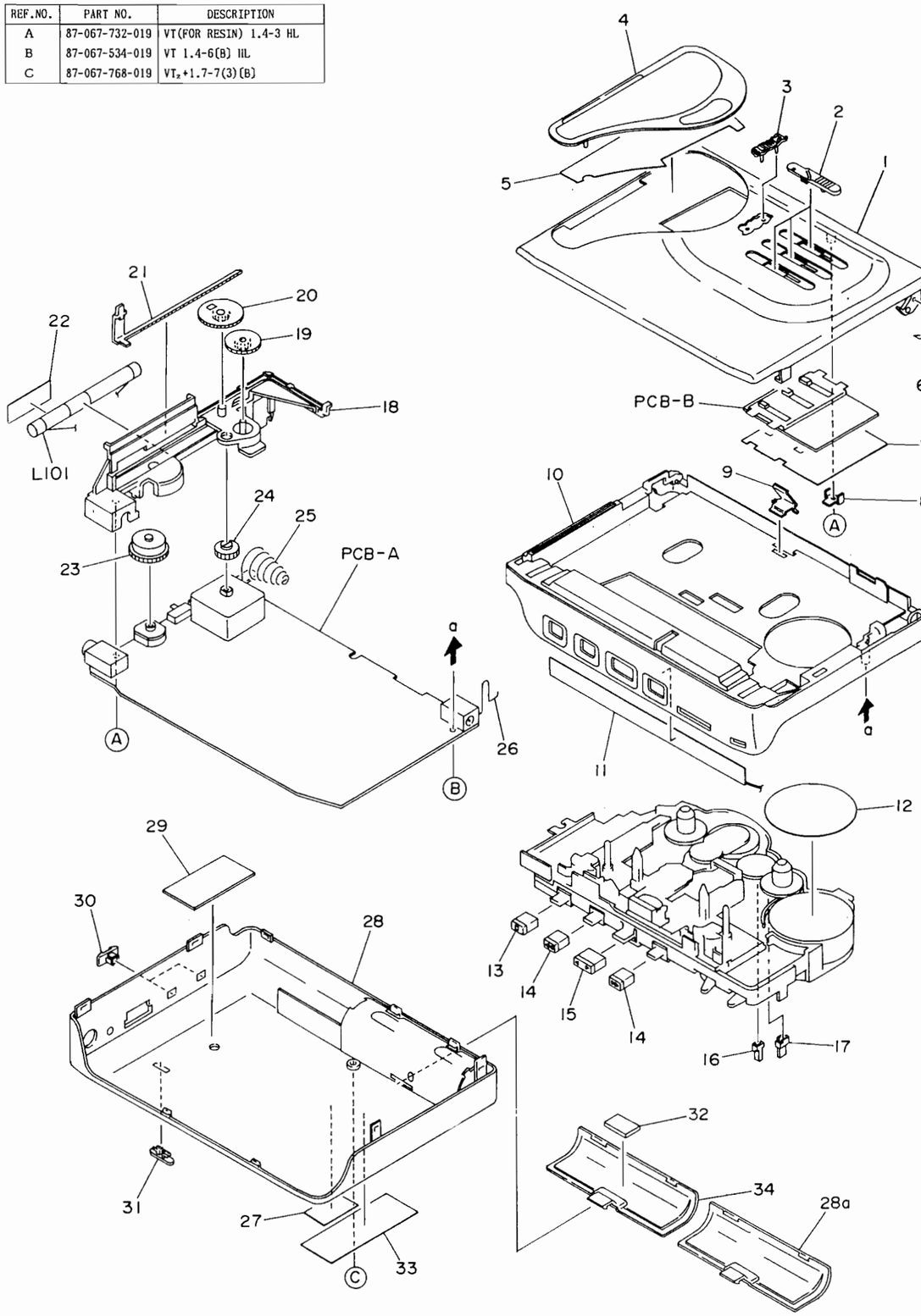
Sensitivity:	FM	Less then 18dB (88/98MHz)
(IHF THD 3%)		Less than 20dB (108MHz)
(S/N 10dB)	AM	Less than 57dB (600kHz)
		Less than 54dB (1000kHz)
		Less than 53dB (1400kHz)
Intermediate frequency:	FM	10.7 ± 0.1MHz
	AM	468kHz ± 3kHz
FM stereo separation:	FM	More than 16dB

<TAPE PLAYER SECTION>

Wow & flutter:	Less than 0.45% (JIS, RMS)
Pinch roller pressure:	125~160g
Take-up torque:	23~45g-cm (FWD/REV)
F. F & Rew torque:	More than 90g-cm
Back tension:	3.5 ± 1.5g-cm (FWD/REV)
S/N ratio:	More than 43dB (DC)
Distortion:	Less than 3.0%
Noise level:	Less than 7.0mV (VOL MAX AC)
Frequency response:	63Hz~8kHz ± 4.0dB (NORMAL)
	63Hz~10kHz ± 4.0dB (CrO_2, METAL)

EXPLODED VIEW – 1

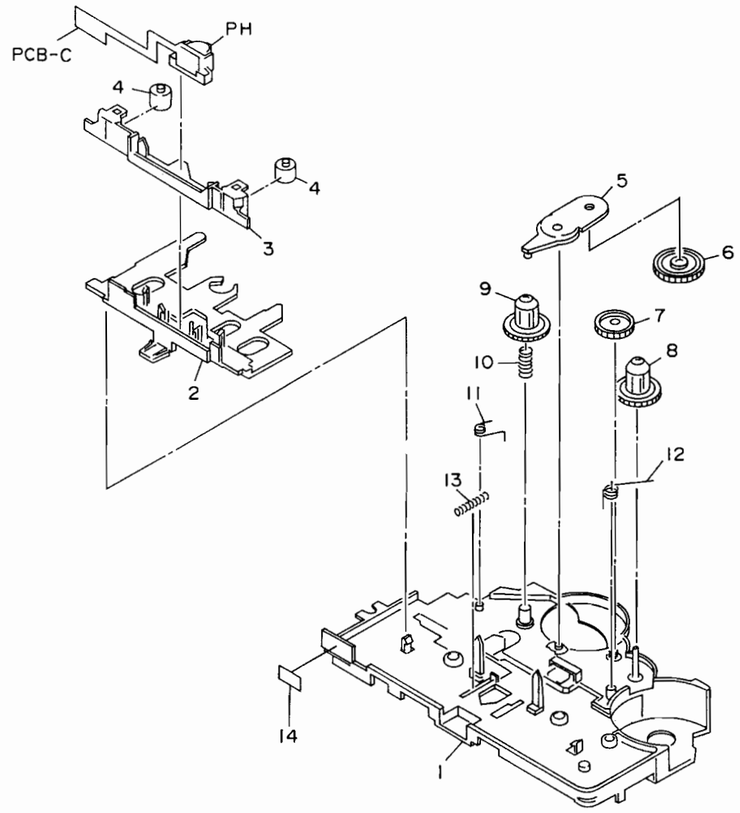
REF.NO.	PART NO.	DESCRIPTION
A	87-067-732-019	VT(FOR RESIN) 1.4-3 HL
B	87-067-534-019	VT 1.4-6(B) HL
C	87-067-768-019	VT$_2$+1.7-7(3)(B)



MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	1-1	81-HRE-001-119	LID, CASSETTE[B]	*	1
	1-1	81-HRE-021-019	LID, CASSETTE[N]	*	1
	1-2	★81-HRE-007-019	KNOB, SLIDE GE	*	3
	1-3	★87-054-080-010	BADGE, AIWA20		1
	1-4	★81-HRE-005-019	WINDOW, TUNER(EXCEPT FOR WYUB)	*	1
	1-4	★81-HRE-014-019	WINDOW, TUNER(WYUB)	*	1
	1-5	★81-HRE-210-019	ADHESIVE, WINDOW	*	1
	1-6	★81-HRE-207-119	T-SPRING, CLICK	*	1
	1-7	★81-HRE-201-019	COVER, GE	*	1
	1-8	★80-HRG-203-019	HOLDER, GE		1
	1-9	★81-HRK-202-019	P-SPRING, CASSETTE		1
	1-10	★81-HRE-002-119	FRAME, CENTRE	*	1
	1-11	---	SHIELD, SHEET EARTH		1
	1-12	★81-HRE-017-019	LABEL, MOTOR 0.05	*	1
	1-13	★81-HRE-020-019	BUTTON, STOP RAW	*	1
	1-14	★81-HRE-019-019	BUTTON, FF RAW	*	2
	1-15	★81-HRE-018-019	BUTTON, PLAY RAW	*	1
	1-16	★81-HRE-209-119	SPACER, SW B	*	1
	1-17	★81-HRE-208-019	SPACER, SW A	*	1
	1-18	★81-HRE-202-019	CHASSIS, TUNER	*	1
	1-19	★81-HRE-203-119	GEAR, IDLER	*	1
	1-20	★81-HRE-008-119	KNOB, ROTARY TUNER	*	1
	1-21	★81-HRE-011-019	POINTER, TUNER	*	1
	1-22	★81-HRE-211-019	SHIELD, STATIC	*	1
	1-23	★84-506-028-119	KNOB, VOLUME		1
	1-24	★81-HRE-204-119	GEAR, TUNER-CAP	*	1
	1-25	★81-HRE-206-019	BATTERY-CONTACT -	*	1
	1-26	★81-HRE-205-019	BATTERY-CONTACT +	*	1
	1-27	---	LABEL, DBP(YZ)		1
	1-28	★81-HRE-003-219	CABINET, REAR[B]	*	1
	1-28	★81-HRE-024-019	CABINET, REAR ASSY[N]	*	1
	1-28a	81-HRE-023-019	LID, BATTERY[N]	*	1
	1-29	★81-HRE-222-019	MYLAR, 14-28-0.5	*	1
	1-30	★81-HRE-009-219	KNOB, SLIDE CONTROL	*	2
	1-31	★81-HRE-010-019	KNOB, SLIDE CONTROL B	*	1
	1-32	★81-HRE-214-019	CUSHION, BATTERY	*	1
	1-33	★81-HRE-012-019	LABEL, SPEC (Y, Y1, YZ, YK)	*	1
	1-33	★81-HRE-015-019	LABEL, SPEC (YU)	*	1
	1-33	★81-HRE-013-019	LABEL, SPEC (YJ1)	*	1
	1-34	81-HRE-004-019	LID, BATTERY[B]	*	1

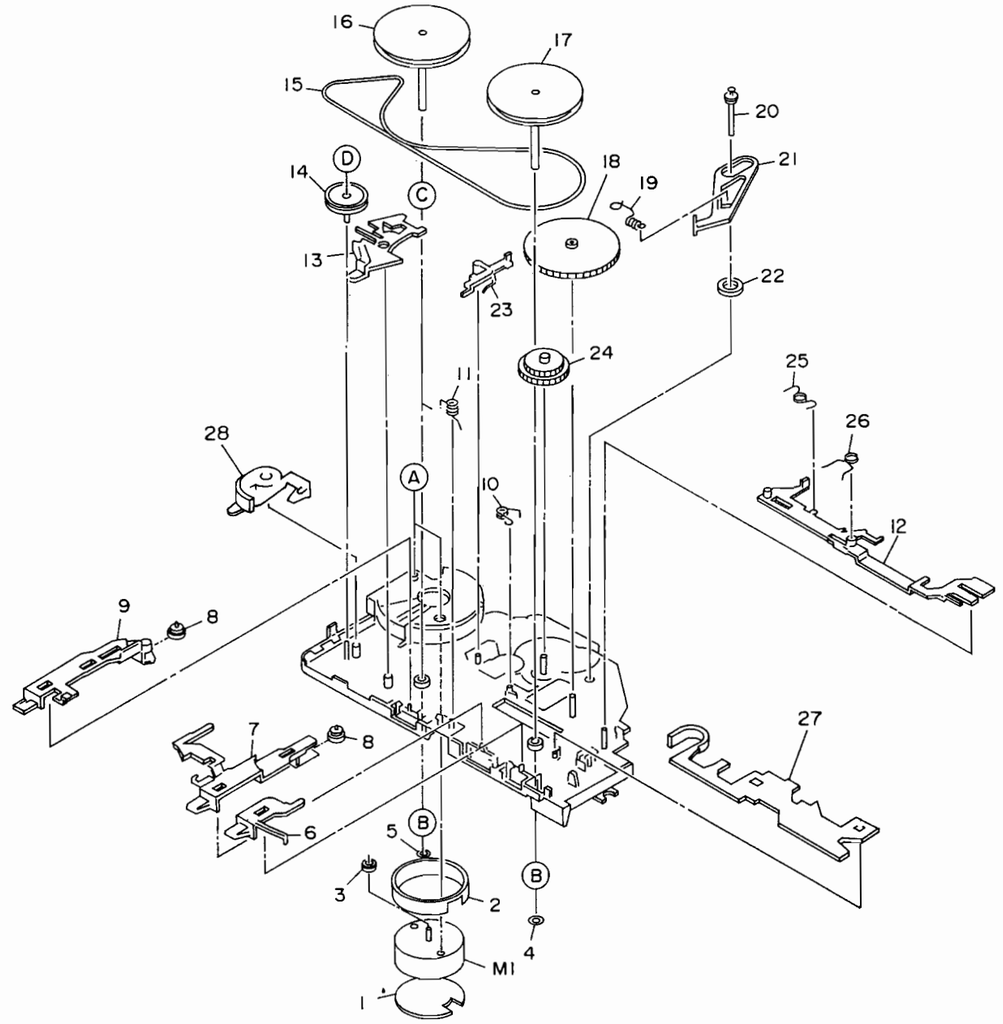
EXPLODED VIEW – 2



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
2-1～3-28		★M8-0ZM-291-019	0ZM-2N MECHANISM ASSY		1
	2-1	---	CHASSIS, MAIN		1
	2-2	---	LEVER, BUTTON PLAY		1
	2-3	---	LEVER, PINCH		1
	2-4	★80-ZM2-228-110	PINCH ROLLER ASSY		2
	2-5	---	LEVER, PLAY FR		1
	2-6	★80-ZM2-224-010	GEAR, PLAY FR		1
	2-7	★80-ZM2-225-010	GEAR, MIRROR		1
	2-8	★80-ZM2-222-010	TABLE, REEL F		1
	2-9	★80-ZM2-223-010	TABLE, REEL R		1
	2-10	---	C-SPRING, BT		1
	2-11	---	T-SPRING, DEFEND AUTO		1
	2-12	---	T-SPRING, BT		1
	2-13	---	C-SPRING, BUTTON PLAY		1
	2-14	---	ADHESIVE-SHEET, FLEX		1

EXPLODED VIEW – 3

REF.NO.	PART NO.	DESCRIPTION
A	87-264-528-310	V+1.7-3.5 CR
B	87-067-784-010	PW2.07-3-0.2
C	80-ZM2-595-019	LM2.1-4.5-0.05
D	87-ZM2-569-019	PW0.9-3-0.25



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	2-1～3-28	★M8-0ZM-291-019	0ZM-2N MECHANISM ASSY		1
	3-1	---	BOARD, SHIELD B		1
	3-2	---	BOARD, SHIELD		1
	3-3	★80-ZM2-232-010	PULLEY, MOTOR		1
	3-4	★87-067-605-010	SHEET, SOMA 3.5-1.45-0.3		1
	3-5	★87-067-783-010	SHEET, SOMA		1
	3-6	---	LEVER, BUTTON STOP		1
	3-7	---	LEVER, BUTTON REW		1
	3-8	★80-ZM2-256-110	GEAR, FF REW		2
	3-9	---	LEVER, BUTTON FF		1
	3-10	---	T-SPRING, PLAY FR		1
	3-11	---	T-SPRING, BUTTON FF REW		1
	3-12	---	LEVER, DIR		1
	3-13	---	BUTTON, DIR		1
	3-14	★80-ZM2-231-010	PULLEY, BELT		1
	3-15	★80-ZM2-240-010	BELT, SQ 0.75-244		1
	3-16	80-ZM2-262-019	FLYWHEEL FM ASSY		1
	3-17	80-ZM2-216-010	FLYWHEEL R ASSY		1
	3-18	★80-ZM2-227-210	GEAR, AUTO		1
	3-19	---	E-SPRING, LEVER AUTO		1
	3-20	---	SHAFT, REEL		1
	3-21	---	LEVER, AUTO		1
	3-22	---	SHEET, AUTO		1
	3-23	---	LEVER, SWITCH		1
	3-24	★80-ZM2-218-810	SLIP GEAR ASSY		1
	3-25	---	T-SPRING, DIR		1
	3-26	---	T-SPRING, PINCH		1
	3-27	---	LEVER, LOCK		1
	3-28	---	BUTTON, MODE CHG		1